

## FOUR NEW MAMMALS FROM VENEZUELA.

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Among South American mammals obtained in recent years by the Field Museum of Natural History are four from western Venezuela that appear to be undescribed. They are as follows:

### **Peramys palliolatus** sp. nov.

*Type* from San Juan de Colon, State of Tachira, Venezuela. Altitude 2,500 ft. No. 20524 Field Museum of Natural History. Adult male. Collected Nov. 14, 1913, by M. P. Anderson. Orig. No. 159.

*Characters*.—Similar in general characters to *Peramys brevicaudatus* but color of under parts entirely rich tawny; hairiness at base of tail reduced to about a half-inch, that of the upper side only slightly exceeding the lower; skull larger and teeth relatively small.

*Color*.—Median upper parts from end of nose to rump with hairs dull slaty at the base and tipped with yellowish gray, the whole forming a broad grayish dorsal band; sides of face including a narrow line over the eye, sides of body, arms and legs, and entire under parts deep rich ferruginous; hands and feet dusky mixed with ferruginous; scaly part of tail blackish above and below.

*Skull*.—Similar to that of *P. brevicaudatus* but larger; nasals long and broadly expanded posteriorly; naso-frontal suture emarginate; rather marked postorbital swellings; molariform teeth slightly smaller than in *brevicaudatus*.

*Measurements*.—Type: Total length 197; head and body 116; tail 79; hind foot 21.5. Skull of type: Greatest length 36; basal length 36; zygomatic breadth 19.8; greatest interorbital breadth 7.5; least interorbital breadth 6.3; length of nasals 17; greatest width of nasals 5.8; palate length from gnathion 20; front of canine to back of  $M^4$  14.4; combined length of  $Ms^{1-3}$  6.5.

*Remarks*.—This species is not only darker in color than *brevicaudatus* but the hairiness of the upper side of its tail is much less extensive. It is evidently larger and darker than *P. b. orinoci* and *P. b. dorsalis*

and has the under parts more richly colored. For purposes of comparison, a specimen collected by R. H. Becker at Itacoatiara, near Manaus, Brazil, has been regarded as representing true *brevicaudatus*.

**Odocoileus lasiotis** sp. nov.

*Type* from Paramo de los Conejos, Sierra de Merida, Venezuela. Altitude 9,000 ft. No. 20198 Field Museum of Natural History. Adult male. Collected Aug. 19, 1912. Received from S. Briceño Gabaldon and Sons.

*Characters*.—A medium-sized deer with full long pelage (hairs on back and sides 30–50 mm.), densely hairy and relatively short ears, broad heavy tail, and dark grayish coloration with rather extensive blackish brown markings; no metatarsal gland.

*Color*.—General color of upper parts buffish gray, the hairs broccoli brown or drab with a broad subterminal annulation of buffy and a dusky tip producing a somewhat coarsely peppery appearance; sides of body notably paler than back; a continuous dark brown line from the nose over the head, neck, and shoulders to the middle of the back, widening to cover practically the entire forehead and interorbital region, broadening again over the shoulders and thence gradually merging with lighter toward the tail; sides of head and face grayish finely punctulated; sides of nose dark brown continuous with median dark frontal area and separated from rhinarium and upper lips by a sharply defined line of buffy white; a broad blackish eyering; chin creamy white with a conspicuous blackish brown submaxillary spot on each side separated from the narrowly white throat by a buffy gray continuation from the sides of the face; lower neck and brisket brownish drab only slightly punctulated or lined with whitish; axillary region buffy white continuous with a well defined stripe down the hind side of the foreleg to the “knee” and bordered by pale cinnamon; foreleg mixed drab and cinnamon fawn becoming brighter nearly clear clay color touched with tawny below the “knee”; a well-marked dark brown line from midway of the humerus down the front of the leg to the pastern where it is interrupted by a fulvous area followed by a broad brown spot at the base of the hoofs; belly white, continuous with a sharp stripe down the inner side of each hind leg to a point opposite the hock; remainder of hind legs colored practically like forelegs but brownish stripe less pronounced; ears densely hairy on the outside, dark drabbish bistre distally somewhat more grayish proximally; lower base of ear and one third of lower side white; inside of ear thickly clothed with long creamy white hairs; tail

broad and heavily haired, the hairs at the tip extending 75–85 mm. beyond the vertebræ and those on the sides 70–80 mm.; median upper side of tail Prout's brown, the hairs self-colored on the distal half of the tail, broadly tipped with pale cinnamon on the proximal half and continuous with the color of the back; under side of tail white, the hairs longer than the median dark ones of the upper side.

*Skull*.—Practically as in *O. savannarum* (= *O. spinosus*); smaller and having decidedly weaker dentition than *O. gymnotis* as represented by specimens from the Maracaibo region, Venezuela.

*Antlers*.—The antlers of the type are in the velvet and were received attached to the skin, the pedicels having been hacked through with a machete in removing the skin. They are rather small (length on outer curve 320 mm.) and only the right antler is normal, the left having the beam depauperate and shorter than the back tine. The right antler has four points, a strong well-developed subbasal snag (70 mm.), a long slender bez or back tine directed upward and backward (105 mm.), and a short trez (25 mm.) two thirds of the way from the base of the bez to the point of the forwardly directed beam. The burr is heavy and the subbasal snag together with the beam below the bez is highly rugose.

*Measurements*.—Type (dressed skin, measured dry): Head and body 1460; tail vertebræ 130; hind foot 340; ear from crown 125; ear from notch 110. Skull of type: Greatest length 244; basilar length 220; tip of premaxillæ to end of palate 157; zygomatic width 100; mastoid width 82; interorbital width 63; median length of nasals 72; greatest width of nasals 27.6; width between outer sides of second upper molars 69; length of upper toothrow 71; lower toothrow 72.2.

*Remarks*.—So far as known, all the deer of the genus *Odocoileus* previously described from northern South America inhabit the lowlands in the arid or semi-arid savannas, regions of light intermittent forest or open grasslands. They are short-haired and largely ochraceous or "reddish" in color and their hoofs are narrow and pointed. The species above described evidently inhabits the paramos and the scattered tongues of forest surrounding them at considerable elevation above the hot regions. Its full long pelage leaves no room for doubt that its habitat is relatively cool and moist. Even if they were abundant, deer would be difficult to obtain in these mountain regions; but it is probable this species is rare, since no specimen of it has been obtained previously, although the Merida region is one from which much natural history material has been sent for a number of years.

Several names have been given to deer of the genus *Odocoileus* from

northern South America, but so far as they can be assigned to definite localities all of them apply to the one or more lowland species generally recognized under the names *gymnotis* and *savannarum*. Among these names is one based on very defective material supposed to have been received from Bogota, Colombia, which is in a highland region, but the material itself offers no evidence to the contrary and all the probabilities favor the view that the animal was actually killed in the lowlands, its horns merely having passed through the highlands in transit to the coast whence they were taken to a European museum.

The status of the various names may be discussed briefly as follows:<sup>1</sup>

1833. *Cervus gymnotis* Wiegmann, Isis, p. 963, 1833.

This species is usually credited to Colombia, but its type locality is the Orinoco region, doubtless the savannas on the lower part of the river, for although it is stated in the original description that it came from Colombia this is qualified by the information that its former possessor had received it via St. Thomas (W. I.) from the Orinoco region. For purposes of comparison, specimens from the savannas east of Lake Maracaibo, Venezuela, have been used to represent this species but it is by no means certain that they are identical with the Orinoco animal of which no complete specimens are available.

1846. *Cervus spinosus* Gay and Gervais, Ann. Sci. Nat., Ser. 3., Zool., V, pp. 93-94, 1846.

This name has priority over *savannarum* and, so far as can be judged from the description, was founded upon the same species. It has page priority over *Cervus goudotii* and is antedated only by *C. gymnotis*. Therefore it should be the recognized name of the Guiana deer unless that species proves not to differ from the animal of the lower Orinoco region in which case it would become a synonym of *gymnotis*. The essential part of the original description is as follows: "Ainsi G. Cuvier fait connaître, comme se rapportant au *Cervus virginianus*, des bois envoyes de Cayenne par M. Poiteau; mais il est evident qu'ils sont d'une autre espèce. Ces bois sont petits, épineux à un seul andouiller, etc. Nous signalerons cette espèce à l'attention des zoologistes sur le nom de *Cervus spinosus*."

1846. *Cervus goudotii* Gay and Gervais, Ann. Sci. Nat., Ser. 3., V, p. 94, 1846.

The basis of this name was a small single-branched horn, probably still preserved in the Paris Museum. It was said to have been received from "les régions élevées de la Nouvelle-Grenade." At

<sup>1</sup> For friendly aid in consulting books not contained in Chicago libraries, I am indebted to Mr. N. Hollister of the U. S. National Museum.

the most, this indefinite statement of locality could only mean that the specimen was secured from a native or bought in a shop in the interior of Colombia, probably in Bogota. Deer are exceedingly rare and difficult to obtain in the mountains near Bogota and it is even doubtful whether any except small brockets (*Mazama*) occur there; whereas they are fairly common in the savannas directly east of Bogota along the upper Meta River on Orinoco drainage. A trade route between this region and Bogota has been open for many years and the skins or parts of the lowland animals as well as living animals for pets are constantly carried to Bogota for sale.<sup>1</sup> It is highly probable, therefore, that the type of *Cervus goudotii* came from the upper Orinoco region east of Bogota, Colombia. So far as known, the deer of this region do not differ from those of the lower Orinoco. The name *goudotii* may therefore be regarded as a synonym of *gymnotis*.

1848. *Cervus savannarum* Cabanis and Schomburgk, Reisen in Brit. Guiana, III, p. 785, 1848.

Although this name is usually regarded as representing a valid form differing from *gymnotis* at least in certain external characters, it is doubtful if specimens typically representing the two ever have been compared. Two imperfect skulls in the Field Museum obtained by M. P. Anderson and R. H. Becker at Boa Vista, Rio Branco, Brazil, may be considered practically as topotypes of *savannarum*, for Fort San Joaquim (very near Boa Vista) was Schomburgk's headquarters for some time and he has especially mentioned the abundance of deer in that vicinity.

Unfortunately, it seems necessary that the name *savannarum* be superseded by *spinosus* which has two years' priority.

1879. *Gymnotis wiegmanni* Fitzinger, Sitzungsber. K. Ak. Wiss. Wien, LXXVIII, p. 344, 1879.

A renaming of *Cervus gymnotis* Wiegmann, of which, therefore, it is an absolute synonym.

1879. *Cervus columbicus* Fitzinger, Sitzungsber. K. Ak. Wiss. Wien, LXXIX, p. 66, 1879.

Based on a skull and horns described and figured but not named by Pucheran (Arch. du Mus., VI, p. 335, pl. 23, fig. 1, 1852). These were obtained from Bogota, Colombia, by the French traveler and naturalist Roulin. "Bogota" is of course a generalized locality covering the

<sup>1</sup> Dr. F. M. Chapman, who has lately done some thorough ornithological work in the Bogota region, assures me that at present the skins of spotted cats, jaguars, pumas, etc., and certain live birds and mammals offered for sale in Bogota are largely from the eastern savanna or llano region.

whole Bogota region and, as in the case of *C. goudotii*, it may mean that the specimen actually had its source in the savannas east of Bogota near the Meta River. Pucheran's figure, however, shows a pair of horns of somewhat unusual character, not referable with certainty to any known species. The disposition of the name *columbicus*, therefore, awaits competent examination of the type in the Paris Museum.

***Rhipidomys fulviventor elatturus* subsp. nov.**

*Type* from Paramo de Tama, head of Tachira River, Venezuela. Alt. 7,000 ft. No. 18691 Field Museum of Natural History. Adult male. Collected March 3, 1911, by W. H. Osgood and S. G. Jewett. Original No. 4252.

*Characters*.—A small *Rhipidomys*, smaller than any previously described species of the restricted genus; general characters and coloration essentially as in *R. fulviventor*, but belly paler, tail shorter, hind foot smaller, and audital bullæ smaller. Upper parts practically uniform tawny ochraceous evenly and finely mixed with dusky; a slight tawny ochraceous line; ears and tail sooty brown; under parts creamy white, lightly washed on the middle of the belly with pale tawny, the hairs, except those of the chin, with dark slaty bases.

*Measurements*.—Type and adult female topotype, respectively: Total length 225, 225; head and body 108, 108; tail 117, 117; hind foot, with claw 24, 23. Skull of type: Greatest length 28.2; basilar length 21.4; zygomatic breadth 15.6; interorbital constriction 4.3; nasals 11.3x 2.9; interparietal 10.7x3.9; palatine foramina 5.7x2; diastema 7.4; upper tooththrow 4.5.

*Remarks*.—This form is well distinguished from *fulviventor* but in the present unrevised condition of the genus, its relationship is conveniently indicated by the trinomial. Typical examples of *fulviventor* have not been available for use in the present connection and conclusions have been based upon the original description supplemented by specimens from eastern Peru referred to *fulviventor* by Oldfield Thomas.

It is not improbable that the rats of this genus are more restricted within the boundaries of continuously forested areas than those less arboreal in habit. Relatively small discontinuities of forest, therefore, may be locally more effective factors of isolation than temperature and altitude.

**Proechimys poliopus** sp. nov.

*Type* from San Juan de Colon, State of Tachira, Venezuela. Altitude 2,500 ft. No. 20525 Field Museum of Natural History. Subadult. Collected Nov. 15, 1913, by M. P. Anderson. Orig. No. 160.

*Characters*.—A relatively small species with grayish throat, forearms, and fore and hind feet. Size about as in *P. urichi* and *P. ochraceus*; smaller than *P. mincæ* and *P. guairæ*; spines rather weak, about as in *P. urichi*.

*Color*.—Upper parts dull tawny liberally mixed with black on the head and back, the sides being paler; under parts chiefly white, the middle throat and an irregular line on each side of the belly drab gray only slightly paler than the basal color of the hairs of the sides; front of forearms and forefeet darker drab gray approaching broccoli brown; hind feet grayish drab with a slight touch of whitish on the inner sides; tail very lightly haired, blackish above, yellowish white below.

*Skull*.—Similar to that of *P. ochraceus* but audital bullæ decidedly smaller, almost as small as in *P. urichi*; palatine foramina rather short and broad leading posteriorly into shallow channels on each side of the palate; zygomata somewhat heavier than in *P. urichi* and nasals shorter; supraorbital ridges relatively weak; parieto-interparietal suture practically obliterated before full maturity; parietals without ridges; teeth about as in *P. ochraceus*, slightly larger than in *P. urichi*.

*Measurements*.—Type: Total length 363; head and body 223; tail 140; hind foot 46. Skull of type (last molar in place, but not quite high enough to be functional): Greatest length 48.9; basilar length 34.4; zygomatic breadth 24.7; interorbital breadth 11.1; nasals 16.6x 5.1; diastema 10; postpalatal length 18.3; palatine foramina 4.2x3; upper tooththrow 8.7.

*Remarks*.—The gray forelimbs and feet distinguish this species from all of its congeners to which it is similar in other respects. From *P. canicollis*, which also has gray limbs, it is distinguished by its smaller size, its much darker and more uniform color (that of the head undifferentiated from that of the body), and its cranial characters. *P. mincæ* sometimes has grayish forelimbs, but it is a larger species with wholly white under parts. Actual comparison has been made with topotypical material representing *P. urichi*, *P. ochraceus*, *P. mincæ*, and *P. canicollis*. *P. guairæ* is doubtless related also, but its larger size and white feet distinguish it.